REPLACEMENT SHEET Unstructured Request(s) 122 Service Description/Symptom(s) Related PS Article(s) Knowledge Base (KB) Articles (Dynamic and/or Statically Generated KB Articles) L_Resolution(s) Structured Answer PSS Service Request Log <u>SAO</u> Objects Cause(s) 108 110 REINFORCED CLUSTERING MODULE STRUCTURED ANSWER OBJECT (SAO) GENERATION MODULE SEARCH PROVIDER MODULE KB UPDATE MODULE INDEXING MODULE PROGRAM DATA PSS SERVER **OTHER DATA** METADATA INDEX <u>126</u> 124 130 134 136 140 9 102 Query (E.g., Product Problem and/or Message (E.g., Select One(s) of Response the Hierarchically Structures SR(s) Symptom(s)) CLIENT COMPUTING DEVICE TROUBLESHOOTING WIZARD SYMPTOMS/DESCRIPTION (SEARCH AND RESULTS PRODUCT PROBLEM BROWSING) 138 120 Network 104 --

DOCKET No. MS1-1892US

TITLE: MINING SERVICE REQUESTS FOR PRODUCT SUPPORT

INVENTORS: ZENG ET AL.

<u>300</u>

302 -Convert Unstructured Service Requests to One or More Structured Answer Objects 304 -Responsive to Receiving a Product Problem Description, Identify a Set of the Structured Answer Objects that Include Terms and/or Phrases Related to the Product Problem Description 306 -Provide Historic and Hierarchically Structured Problem Diagnosis Data from the Set to an End-User for Product Problem Diagnosis

Fig. 3